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MCS-213

**MASTER OF COMPUTER
APPLICATION (MCA-NEW)
Term-End Examination
June, 2026**

MCS-213 : SOFTWARE ENGINEERING

Time : 3 Hours

Maximum Marks : 100

Weightage : 70%

Note : (i) *Question No. 1 is compulsory.*

(ii) *Attempt and **three** questions from the rest.*

1. (a) Explain the evolution of software engineering and discuss the key challenges faced in early software development. 10

- (b) Discuss the principles of software requirements analysis and the challenges faced during the requirements gathering phase. 10
 - (c) Explain the concept of modular design in software engineering. Discuss the advantages and disadvantages of modular design. 10
 - (d) Briefly explain the process of software testing and explain any *two* levels of testing. 10
2. (a) Discuss the importance of Software Quality Assurance (SQA) in software engineering. Explain the role of SQA tools in ensuring software quality. 10

- (b) Explain the concept of software re-engineering and its importance in modern software development. Provide an example of a scenario where re-engineering is necessary. 10
3. (a) Define software project cost estimation. Explain the Function Point Analysis (FPA) method for estimating software project size. 10
- (b) Explain Prototyping Model of Software Development. What are its advantages and disadvantages ? 10
4. (a) Explain the concept of Software Configuration Management (SCM). Discuss the key activities involved in SCM and their importance in software projects. 10

- (b) What is risk management in Software Engineering ? Explain the steps involved in risk management and provide an example of a risk mitigation strategy. 10

5. Write short notes on the following : 4×5=20

- (a) Agile Software Development
- (b) Software Metrics
- (c) User Experience (UX) Design
- (d) Re-Engineering

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